

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
11 August 2005 (11.08.2005)

PCT

(10) International Publication Number  
**WO 2005/073194 A3**

(51) International Patent Classification<sup>7</sup>: **C07D 215/18**,  
A61K 31/47

(HR). MARINKOVIC, Marina [HR/HR]; Ulica orhideja  
5, 10360 Sesvete (HR).

(21) International Application Number:  
PCT/HR2005/000005

(74) Common Representative: **PRAMBERGER, Karin**;  
Pliva Croatia, Generics IP, Ulica grada Vukovara 49,  
10000 Zagreb (HR).

(22) International Filing Date: 19 January 2005 (19.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/540,307 28 January 2004 (28.01.2004) US

(71) Applicant (for all designated States except US): **PLIVA-  
ISTRAZIVANJE I RAZVOJ D.O.O.**; Prilaz baruna Fil-  
ipovica 29, 10000 Zagreb (HR).

(72) Inventors; and

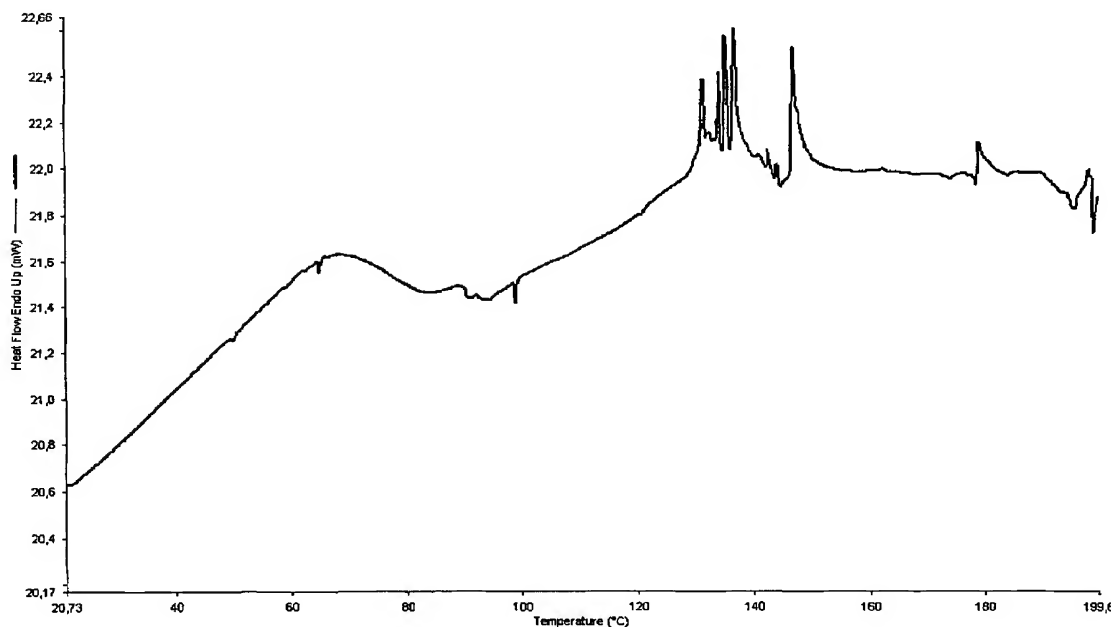
(75) Inventors/Applicants (for US only): **MESTROVIC**,  
Ernest [HR/HR]; Ivana Grande 41, 43000 Bjelovar (HR).  
**HORVAT, Michaela** [HR/HR]; Selcinska 28, 10360  
Sesvete (HR). **DEVICIC, Maja** [HR/HR]; Pavla Radica  
110, 34000 Pozega (HR). **AVDAGIC, Amir** [HR/HR];  
Gustava Krkleca 24, 10000 Zagreb (HR). **CICCIC**,  
Dominik [HR/HR]; Josipa Brunsmida 1, 10000 Zagreb

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,  
ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: SOLID FORMS OF MONTELUKAST ACID



DSC thermogram of amorphous form II of montelukast acid

(57) Abstract: The present invention relates to a new crystalline form and new amorphous forms of 1-(((1(R)-3-(2-(7-chloro-2-quinolinyl)ethenyl)-phenyl)-3-(2-(1-hydroxy-1-methylethyl)phenyl)propyl)thio)methyl) cyclopropane acetic acid ("montelukast acid"), to a process for their preparation, to pharmaceutical formulations containing them, and to a method of treatment using the same.

WO 2005/073194 A3



**Published:**

— with international search report

**(88) Date of publication of the international search report:**

4 May 2006

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*